Future of Online Learning in Bloomington
April, 2010

Summary
Research and educational trends suggest that K-12 education will change significantly over the next decade with online and computer-based instruction playing a critical role. Though enrollment in online education at the K-12 level is low nationally, it is experiencing double digit growth each year. Half of all states currently operate state-run programs in virtual schooling. The intent of this document is to assess the current strategies and to plan for the near future of online teaching and learning in Bloomington Public Schools.

Definitions
Online learning in this report encompasses learning that breaks from teacher led, face-to-face instruction. It includes:

- Online curriculum, tools and teaching strategies used in student centered, face-to-face instruction. Students gather in a classroom with a teacher but the lesson content and student activity is online.
- Hybrid courses(sometimes called "blended" courses) where some instruction is face-to-face and some in online(at least 10%).
- Entirely online courses where students and teacher do not meet face-to-face.

Potential for Online Learning
While online learning is not an appropriate match for all students or for all curricula, it has the potential to satisfy many currently unmet needs.
Online learning . . .

- is effective. "Students who took all or part of their class online performed better, on average, than those taking the same course through traditional face-to-face instruction."[1]
- expands options. "The first impetus to the growth of K-12 distance education is an interest in expanding educational options and providing equal opportunities for all learners."[2]
- improves face-to-face instruction by offering new online resources and alternate teaching and learning techniques to face-to-face teachers. "Teachers who teach online reported positive improvements in face-to-face too."[2]
- may meet the needs of "non-consumers" - credit recovery, homebound, homeschool students.[3]
- Promotes "fluency" in education, lowering the barriers of time and place for learning.[4]
- fosters 21st Century skills and ISTE National Educational Technology Standards(NETS) for students and teachers.[5] [6]
- can be more student centered and serve a wider set of learning styles. "The effectiveness of online learning approaches appears quite broad across different content and learner types."[1]
- differentiates instruction for individualized learning.[7]
- encourages a high level of ownership by students in their education and a greater degree of student choice.[8]

Components of Online Learning

The structure, strategies and support required for successful online learning mirror those of successful face-to-face instruction.

Component 1: Systems, Tools and Software

Online instruction requires a distinct set of tools including a Classroom Management System(CMS) that replicates the face-to-face classroom, Reporting tools for parents, students and teachers, Communication and Collaboration tools for online instruction.

Component 2: Teaching Strategies and Professional Development

Professional development that encourages and supports online instruction must help teachers develop the skills to create online curriculum, model strategies teachers can use in their own courses and set high standards for superior online instruction.

Component 3: Curriculum, Policy and Structural Support

The structural supports for developing and maintaining online instruction include creating incentives and lowering barriers for teachers to create online content, the adoption of an online curriculum, increasing access to technology for students and families and assessing schools policies that affect online teaching and learning.

Vision for Secondary Schools

At the Middle Schools

The foundation for online learning is built in the middle schools through:

- Course management systems that emulate the classroom(Moodle, Ning, teacher/team web pages), provide the organization for face-to-face instruction and a mechanism for online work (homework, assessment, feedback, parent support).
- Communication and collaboration tools(wikis, collaborative docs, email) that promote the development of 21st century skills.
- The team structure of middle schools that provides for efficiently building technical skills because of shared groups of students, for professional development through shared planning time and for innovation through shared vision.
- A one-to-one environment at the middle schools, ideal for building skills for online learning as it eliminates access issues to technology tools and information, provides for and encourages tool use and enables teachers to change practice and procedures systemically.

At the High Schools

High schools will be transformed by online learning through:

- Course management systems and software tools that have the same benefits as in the middle school, providing the framework for content and extending coursework beyond the classroom and the school day.
- Student maturity that allows for flexibility in daily schedules because of the diminished need for district provided transportation and supervision.
- A rich, online curriculum that allows for varied pacing in content delivery and differentiation in instruction as well as more student choice.
- Teacher development toward personalized instruction and mentoring, focusing instructional time on areas of need and on students that benefit most from teacher support.

Goals

Within five years, we will target two outcomes:

1. 50% of high school seniors will graduate from Bloomington Public Schools having taken a course with a major online learning component(taught as either a hybrid or entirely online course).

Graduating Seniors	Taking Hybrids and Online
Currently 2009-2010 seniors who have taken a course with "hybrid" in the name.	94/847 seniors 11%
Goal(2014-2015)	50%

2. 25% of course offerings at the high school level will have an online learning component(taught as either a hybrid or entirely online course).

Course Offerings	Hybrid	Online
Currently 2009-2010 courses with "hybrid" or "online" in the name.	5 courses 11/1760 sections <1%	0 courses 0%
Goal(2014-2015)	20%	5%

Component 1: Systems, Tools and Software

Online Instruction requires a distinct set of tools:

1. An Online Classroom Space and Reporting Tools
2. Communication and Collaboration Tools
3. Teaching Tools

Need	Current Status	Next Steps
Classroom Systems, Reporting Tools • Classroom system like Moodle • Social network systems like Ning • Teacher web sites • Access to student server space • Reporting tools like TIES SchoolView • Parent portal for effective home/school communication • Administrative tools for tracking student progress	+ Moodle pilot is underway with expected expansion in summer. + Current laptop pilots at middle schools showing positive effect encouraging teacher and student tool use. – Teacher web pages and homework reporting are inconsistent and non-uniform. – Access to student servers from home is currently not allowed + Parents use of SchoolView is high. – Parent portal doesn't exist currently.	• Expand Moodle use to all teachers. • Execute plan for sustainable laptop use at Middle schools. • Create uniform teacher expectations for web presence and homework posting. • Allow access to student and teacher servers from home. • Encourage parent use of SchoolView. • Pressure TIES to make SchoolView more accessible. • Adopt a parent portal. • Adopt or create an Administrative "dashboard" to help track student progress.
Communication and Collaboration Tools • Student email • Collaborative documents like Google Docs • Wiki and Blog services • Chat and Voice services like iChat and Skype	– Pilots are delayed for student email and collaborative documents. – Stability with regard to some online tools(wiki/blog) has been an issue.	• Begin pilot of collaborative documents and student email. • Adopt stable tools for classroom wikis and blogs. • Adopt tools for chat and voice services.
Teaching Tools • Screen capture tools like Jing and Snapz Pro • Podcast and video creation tools • Mapping software like Inspiration and bubbl.us • Plagiarism software like TurnItIn.com for written work • Online assessment tools like Moodle quizzes	+ We currently have a variety of tools to support teachers' creation of online resources. Most required tools are available and supported. – Assessment tools are lacking for online instruction. – Home-School connections are weak - teacher web sites, homework posting, server accessibility, student laptop use.	• Continue support for online curriculum creation tools. • Adopt stable tools for video creation and storage, including podcasts. • Adopt or develop assessment tools for teachers in online settings. • Improve home-school connections through teacher web sites, homework posting policy, and server accessibility.

Component 2: Teaching Strategies and Professional Development

Professional development that encourages and supports online instruction must help teachers develop the skills to create online curriculum, model strategies teachers can use in their own courses and set high standards for superior online instruction.

Need	Current Status	Next Steps
Adopt and/or develop professional development techniques for migrating to online instruction.	+ Current laptop pilots at middle schools provide a good environment for developing online teaching strategies – Comprehensive professional development in online learning strategies needs to be developed.	• Execute plan for sustainable laptop use at Middle schools. • Adopt professional development model that develops online instruction skills for teachers. • Focus secondary CT program on developing online learning skills.
Expand professional development online as a model for instruction and as a method for meeting teacher needs for anytime, anywhere instruction.	+ Significant work to move professional development online is underway.	• Continue development of online professional development.
Adopt standards for superior online instruction.	– No current model for standards for good online instruction.	• Develop or adopt standards for online instruction.
Include development of online teaching skills in mentor program and in teacher retention.	– Online teaching skills not currently a part of mentorship or teacher retention process. + Technology inservice required for relicensure process starting in 2012	• Include components of online instruction into mentorship program. • Encourage administrators to include online instruction as a factor in teacher retention.
Streamline hybrid option to be a "regular" teaching strategy with minimal administrative process.	+ Hybrid courses are in their third year of development with planned expansion to Kennedy this spring. – Adoption of hybrid model is slow by teachers and administration	• Continue expansion of hybrids through systemic approaches like the curriculum cycle. • Work with administrative teams to encourage teachers to develop online materials.

Component 3: Curriculum, Policy & Structural Support

The structural supports for developing and maintaining online instruction include creating incentives and lowering barriers for teachers to create online content, the adoption of an online curriculum, increasing access to technology for students and families and assessing schools policies that affect online teaching and learning.

Need	Current Status	Next Steps
Lower barriers to and create incentives for teachers to transition to online instruction.	+ Administrative support for investigation into online learning is strong. + The "early bird" option is being investigated to recover some student choice lost in the move from 4-pd to the 6-pd day.	• Broaden knowledge of online learning among district leaders. • Develop and pilot "early bird" solutions as part of switch to the 6-pd day. • Make hybrid option more accessible to students.
Adopt curriculum for online instruction.	+ APEX curriculum is being piloted in credit recovery and ALC programs. + Process for evaluating online curriculum is underway by Teaching and Learning.	• Pilot other online curriculum and decide on a single alternative. • Develop a structure for evaluating and reevaluating online curriculum. • Find ways to encourage schools to use online curricula appropriately.
Increase student access to technology.	+ Laptop pilot at middle schools viewed as positive by students, families and teachers. – Laptop one-to-one is resource intensive. – Laptop model is currently primary model for increasing technology access + Open wifi pilot is underway. – No comprehensive plan to utilize family resources to increase access.	• Execute plan for sustainable laptop use at Middle schools. • Adopt open wifi policy and develop more functions - printing and file server access. • Investigate options for families sharing technology burden. • Pilot other technologies(i.e. netbooks) for student use. • Develop strategies for moving to 1-to-1 at the High Schools.
Lower barriers of access to hardware and connectivity for families in need.	– Minimal work done currently to ensure home access for families.	• Work with city and outside sources to provide low-cost connectivity to families. • Communicate with families the technology resources available for home use.
Reassess district policy regarding equipment replacement, course credit, and course pacing.	– Technology decisions and resource allocation prioritized toward business functions of district. – District level awareness of online learning is weak. +/–The perspective of school administrators and systems administrators toward online activity is cautious.	• Identify top needs for support of online learning. • Expand efforts to communicate online expansion to staff and students. • Work with school administrations to expand online opportunities.

Endnotes/Supporting Documents

[1] U.S. Department of Education. Office of Planning, Evaluation and Policy Development. *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies*. Washington, D.C. 2009

[2] NCREL. *"Synthesis of New Research on K-12 Online Learning"*, 2005, *North Central Regional Education Laboratory/learning Point Associates*. http://www.ncrel.org/tech/synthesis

[3] Christensen, Clayton M. *How disruptive innovation will change the way the world learns.* New York: McGraw-Hill, 2008. Print.

[4] Fletcher, J. D., S. Tobias, and R.A. Wisher. 2007. "Learning Anytime, Anywhere: Advanced Distributed Learning and the Changing Face of Education." *Educational Researcher. 36* (2), pp. 96-102.

[5] "National Educational Technology Standards." *International Society for Technology in Education.* Web. 28 Dec. 2009. http://www.iste.org/AM/Template.cfm?Section=NETS.

[6] *The Partnership for 21st Century Skills.* Web. Dec. 2009. http://www.21stcenturyskills.org.

[7] Cavanaugh, Cathy. "Getting Students More Learning Time Online: Distance Education in Support of Expanded Learning Time in K-12 Schools." *Rep. Center for American Progress*, May 2009. Web. Dec. 2009.

[8] Richardson, Will. "Footprints in the Digital Age." *Education Leadership* 66.3 (2008): 16-19. Web. 14 Mar 2010

- Ash, Katie. "Building on a Decade of 1-to-1 Lessons." *Education Week: Technology Counts* 18 March 2010: 12-15. Print.
- Beem, Kate. "Virtual Classes, Real Policy." *School Administrator* April 2010: 10-15. Print.
- Chesbro, Patricia, and Nancy Boxler. "Weaving the fabric of professional development in the 21st century through technology." *JSD*. 31.1 (2010): 48-53. Print.
- Crow, Tracy. "Q&A with Chris Dede: Learning, no matter where you are." *JSD*. 31.1 (2010): 10-17. Print.
- Dede, Christopher. *Online professional development for teachers*. Harvard Education Pr, 2006. Print.
- Ferriter, William. "A Digital Bridge to Homebound Students." *Educational Leadership* January 2010: 92-93. Print.
- Gutierrez, Cindy, and Chris Bryan. "Online community becomes a pathway to teacher leadership." *JSD*. 31.1 (2010): 42-47. Print.
- Jacobson, Robert L. "Report Sees Online Schools as Models for Reform." *eSchooNews.* 15 June 2007: n. pag. Web. Dec. 2009.
- National Standards of Quality for Online Courses. (2007). North American Council for Online Learning. Retrieved from http://www.inacol.org/research/nationalstandards/NACOL Standards Quality Online Courses 2007.pdf
- Pape, Liz. "Blended Teaching & Learning." *School Administrator* April 2010: 16-21. Print.
- Pitler, Howard, Elizabeth Hubbell, and Matt Kuhn. *Using technology with classroom instruction that works*. ASCD, 2007. Print.
- Protheroe, Nancy. "Making Virtual Education a Reality." *Principal's Research Review*. 5.1 (2010): 1-7. Print.
- Stansbury, Meris. "ED: Blended Learning Helps Boost Achievement." *eSchooNews*. (2009): 18. Print.
- Stansbury, Meris. "One-to-one computing programs only as effective as their teachers." *eSchooNews* 16 Feb. 2010: n. pag. Web. 13 Mar 2010. http://www.eschoolnews.com/2010/02/16/11-programs-only-as-good-as-their-teachers.
- Tucker, Bill. "Laboratories of Reform: Virtual High Schools and Innovation in Public Education." *Ecucation Sector*. June 2007. Education Sector, Web. Dec. 2009.
- Weber, Eric. "Middle School, One-to-One." *Principal Leadership* December 2009: 27-31. Print.